

2006

Library & Technology Services Strategic Plan 2006-2010

Lehigh University

Follow this and additional works at: <http://preserve.lehigh.edu/lts-strategic-plans>

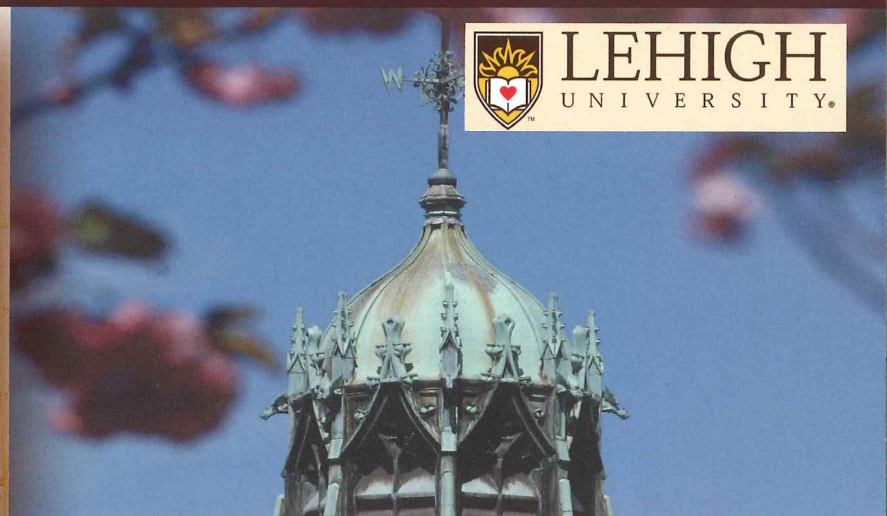
Recommended Citation

Lehigh University, "Library & Technology Services Strategic Plan 2006-2010" (2006). *LTS Strategic Plans*. Paper 4.
<http://preserve.lehigh.edu/lts-strategic-plans/4>

This Technical Report is brought to you for free and open access by the LTS Publications at Lehigh Preserve. It has been accepted for inclusion in LTS Strategic Plans by an authorized administrator of Lehigh Preserve. For more information, please contact preserve@lehigh.edu.

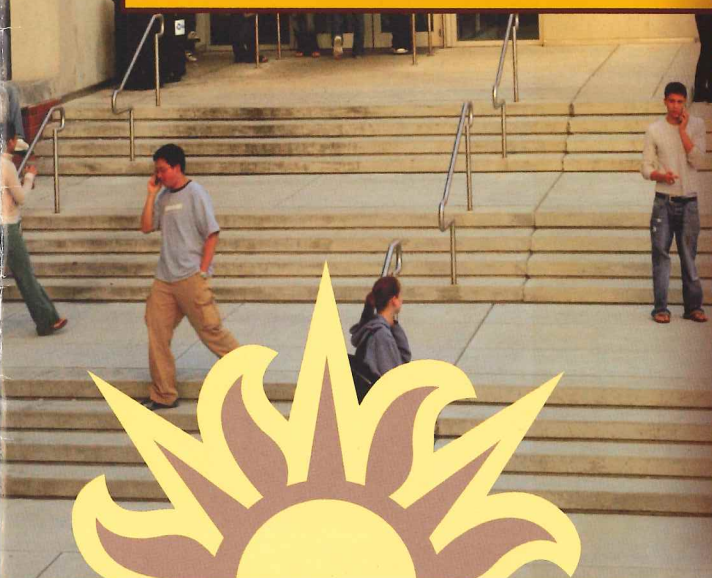


LEHIGH
UNIVERSITY.



A Strategic Plan for **LIBRARY AND TECHNOLOGY SERVICES**

2006-2010



I would like to thank the following Lehigh University faculty and staff members for their time and effort in helping Library and Technology Services update and revise its strategic plan. The guidance of this Committee was very useful and is appreciated.

- MJ Bishop, Assistant Professor, Teaching, Learning, and Technology Program, COE
- Stephen H. Cutcliffe, Professor, Science, Technology, and Society Program
- Terry J. Delph, Professor, Mechanical Engineering and Mechanics
- Edward J. Gallagher, Professor, English, Lehigh Lab Faculty Fellow
- Bruce R. Hargreaves, Associate Professor, Earth and Environmental Sciences
- Robert R. Kendi, Director, Rauch Center for Business Communication
- Susan Lantz, Associate Dean, Student Life
- Jack Lule, Joseph B. McFadden Distinguished Professor of Journalism
- Charles E. Lyman, Professor, Materials Sciences and Engineering
- David H. Myers, Director of the Financial Services Laboratory
- Stephen J. Oblas, Executive Director, Internet and Design Services
- Debra Protchko, Assistant Vice President, Marketing
- Theodore K. Ralphs, Assistant Professor, Industrial and Systems Engineering

The Committee members listed above were drawn largely from the membership of Library and Technology Services' various advisory groups. The advisory groups have given us feedback on a regular basis throughout the year, keeping LTS focused on our goals. The groups and their current memberships are listed in Appendix 1. We greatly appreciate their efforts.

Finally, I wish to celebrate the work of the LTS leadership and the entire LTS staff in accomplishing the overall strategies envisioned in the 2002—2005 Strategic Plan. It is their hard work, dedication, collaboration, and expertise that have brought these initiatives to fruition. They have translated the opportunities and challenges into effective services and programs that have been recognized at a national level. The Directors, listed below, have played a key role in leading this effort and in extending the vision into the future with this updated plan.

- James A. Brown, Distance Education
- Susan A. Cady, Administrative and Planning Services
- Jean W. Farrington, Senior Development Officer
- Timothy J. Foley, Client Services
- Roy A. Gruver, Technology Management Services
- Manny J. Pena, Enterprise Systems Implementation
- Gregory M. Reihman, Faculty Development
- Christine M. Roysdon, Library Collections and Systems
- Sharon Wiles-Young, Library Access Services

Bruce Taggart,
Vice Provost for Library and Technology Services

A Strategic Plan for **LIBRARY AND TECHNOLOGY SERVICES** *2006-2010*



VISION

Lehigh University is committed to providing a leading-edge library and technology environment that enables flexibility, innovation, and effectiveness in all areas of the academic enterprise, including learning, research, administration, community building, and outreach.

INTRODUCTION.....	2
REFLECTIONS ON 2002-05 STRATEGIC PLAN.....	3
CHALLENGES AHEAD.....	6
TEN GOALS FOR LTS @ LEHIGH.....	8

STRATEGIES & INITIATIVES.....10

APPENDIX I: LTS ADVISORY GROUPS...	20
APPENDIX II: ACHIEVEMENTS 2002-05.....	21

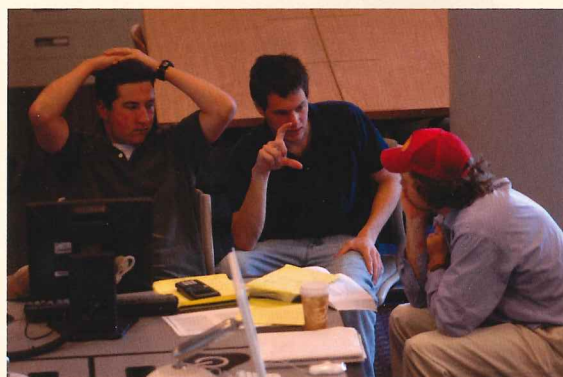
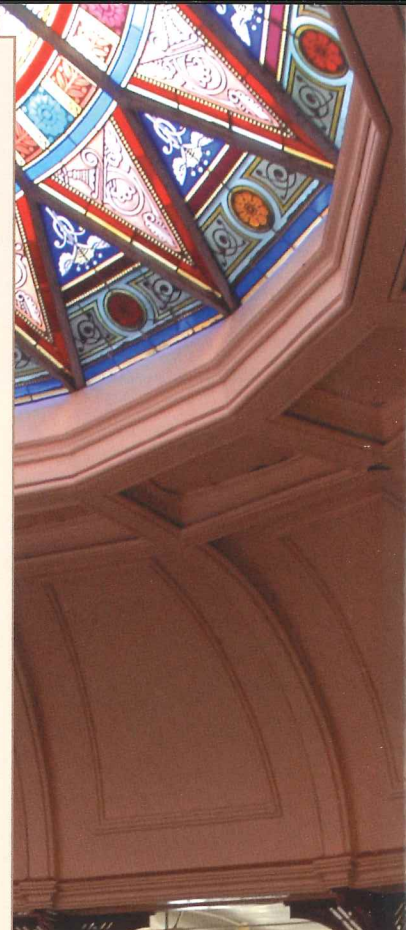


At a time when information and communications technologies are transforming the world in general, and higher education in particular, Lehigh University has demonstrated its ability to be a significant innovator in the use of these technologies to achieve greater effectiveness in instruction, research, community building, outreach, and organizational management. Lehigh's technology environment provides a rich array of communication channels and tools for developing and communicating the institution's unique culture and style. As a leading research university, we will continue to be challenged in the future to invest aggressively in technology and information infrastructure, and to be state-of-the-art in the areas of networking, instructional support, information access and library service, and research computing.

This plan, a broad roadmap for the future direction of Library and Technology Services (LTS), describes how we intend to meet these challenges. It will be augmented at the project level with assessments and metrics to measure success. It is based on the Strategic Plan of 2002-2005, on the achievements and experience that grew out of our efforts to turn that plan into reality, on continuing communication with individuals and groups within the Lehigh community, and on benchmarking with external communities. Those groups that provide LTS with advice directly are particularly helpful in this respect. We acknowledge them with our thanks on the opening page. We will intensify our efforts to support academic quality and enable the university to derive maximum benefit from its technology and information investments.

Several guiding principles should be noted. The Lehigh University Diversity Initiative seeks to "coordinate institutional priorities to support our diversity goals, including strategic planning, leadership recruitment, and accountability." In keeping with this goal and the Initiative's mission, each Library and Technology Services strategy in this Plan should be understood to include a diversity component wherever relevant. Thus we will actively promote an inclusive community that values, affirms, and advances the diverse backgrounds, interests, experiences, and aspirations of all its members.

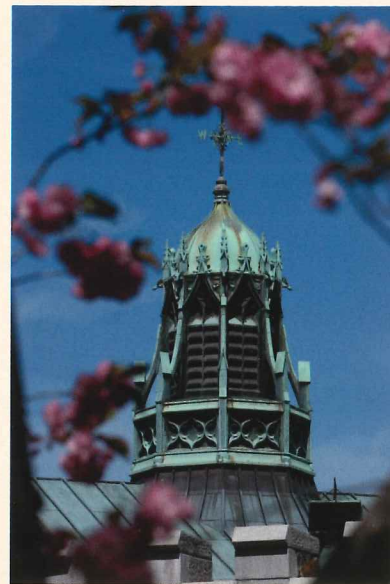
Closely related to the Diversity Initiative is Lehigh University's pursuit of global learning. This is a second guiding principle in the LTS Strategic Plan. Whether it's expanding scientific collaboration across the world via Internet2 or supporting the library research of Lehigh students who are studying abroad, or a myriad of other learning needs, we seek to have a global perspective.



In October 2004 Lehigh University received the highest institutional award bestowed by EDUCAUSE, the premier professional organization for managing information technology in higher education. For Systemic Progress in Teaching and Learning, the award recognized the implementation of the Lehigh Lab stating that "the effective integration of proven techniques, the commitment to organize support structures around these techniques, the clear evidence of long-term institutional resource commitment, and the incorporation of assessment focused on learning outcomes, make the Lehigh Lab a model worthy of emulation and deserving of the ...Award." This external benchmark affirmed both the direction and accomplishments of the first Strategic Plan. All of the LTS units pulled together to win this award. The sustained commitment of university leaders and our many campus partners were also significant. We believe, however, that the true "winners" are the students, faculty, and staff for whose benefit all these services exist.

LEHIGH LAB

The Lehigh Lab is organized around the concept that the entire university is a laboratory for learning. Specific components of this vision that have come to fruition include the Technology Resource Learning Center, the Faculty Fellow rotating position, the initiation of an information literacy program, the Digital Media Studio, and the increase in instructional design and faculty development support for online and traditional courses. The expansion of course management software functionality and the addition of other new tools have further enhanced the breadth of support for the Lehigh community. The 2020 Program allowed LTS to upgrade classroom technology dramatically so that 85% of Lehigh's classrooms are now technology enabled.



LINDERMAN LIBRARY

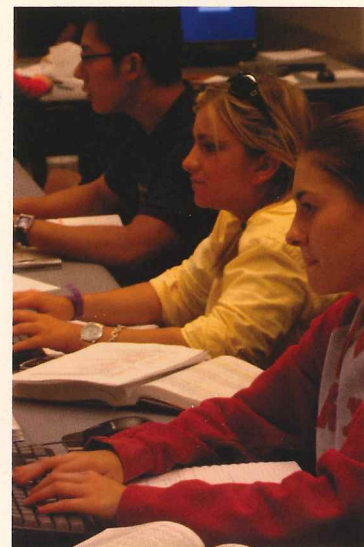
Accomplishments from the first Strategic Plan are obvious around us, and some of them are also works in progress. Most visibly, the historic Linderman Library is in the midst of its transformation into a humanities showplace and an intellectual center for the campus. Soon its seminar rooms, state-of-the-art technology, enhanced navigation and climate control, café commons, group study rooms, and its general and special collections will be ready for the enjoyment of present and future generations.

CAMPUS PORTAL & DIGITAL LIBRARY

The virtual gateway to Lehigh University, the campus portal, is now in full operation with customized versions for First Year students, Admitted students, and (soon) Alumni. The MyLibrary portal component, providing a discipline-based platform for Lehigh's burgeoning electronic information resources, combines with a growing array of Digital Library Projects to provide convenient, well integrated access to print and electronic resources.

COMPUTING

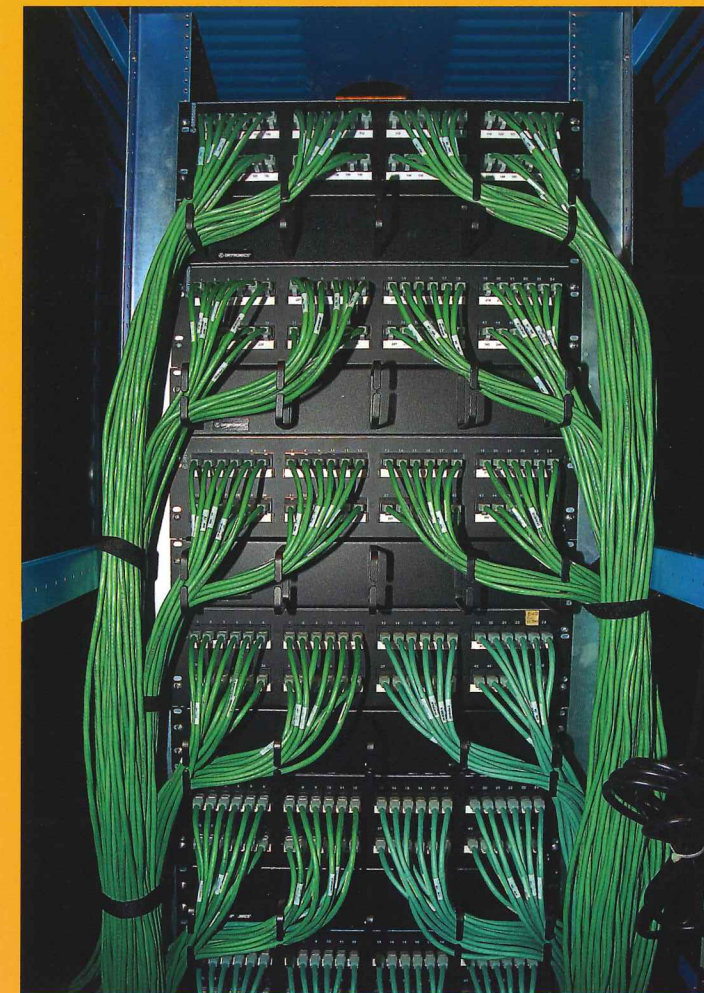
Computing continues to be a core strength of Library and Technology Services with regular life cycle replacement of machines and printers in campus computing sites. In 2002 there were no flat panel displays in our public sites and now the first generation of flat panel displays are being replaced. From high performance computing workstations and grid computing to support for handheld devices, LTS has addressed the varied and increasing complex computing needs of the campus. The campus wireless network was both expanded and secured – another step toward “anytime, anywhere” access.



INFRASTRUCTURE

None of these programs and resources would be deliverable and sustainable without our significantly improved network infrastructure, courtesy in large part of the 2020 Program. The secure and reliable technology environment that Lehigh enjoys has resulted from the replacement of all academic and residential network switches and of the entire cable plant in several research buildings. Firewalls at multiple levels and redundant equipment and services have been installed. In the Distance Education area we have moved to mpeg 4 satellite technology. Another level of functionality and future reliability has been achieved through the currency of our enterprise systems, life cycle replacement funding for these systems, and the implementation of the new business continuity plan.

These are a few highlights from the first Plan; there have been just too many accomplishments to list all of them in this space. The LTS “Top Ten” accomplishments are included in the appendix but even that list does not include everything that has been done. Although it's gratifying to look back and see growth, the most significant achievement is that these initiatives provide a solid foundation for an exciting thrust into the future to serve the Lehigh University community to an even greater degree. Finally, we gratefully acknowledge the vision and leadership of Gregory Farrington, Lehigh University President from 1999 to 2006, during the time the first Strategic Plan was formulated and implemented.



Planning technology for the future is always challenging because change is swift and sometimes proceeds in quite unforeseen directions.

The continuing challenge directly related to Lehigh's essential character is how to leverage technology in this environment to improve learning, teaching, and research. How can we (1) increase and improve collaborative learning spaces, (2) engage faculty in using technology and embracing other pedagogical innovations without overloading them, (3) continue to expand our high performance computing support model for our campus research community, and (4) provide enough support for students and faculty to utilize library and technology resources effectively at all the times they need it?

New service models, with more staff that is more highly trained, are needed to operate the renovated Linderman Library for the anticipated exponential increase in use as well as for other facilities like the Digital Media Studio. Another challenge to LTS, on the library services side, is the increasing campus demand for electronic library resources, both online scholarly publications and digital library products that highlight unique Special Collections' materials. The success of our efforts in these areas to date has stimulated the desire for more, especially for the purpose of integrating them into the curriculum.



Network infrastructure poses another especially large challenge in the near future on two critical fronts. First, although the 2020 Project allowed Library and Technology Services to replace the campus switches, less than half of the life cycle funding has been allocated by the university to replace and upgrade these switches as required in the future. Secondly, the university cable plant in most buildings still consists of dated twisted-pair copper wire and inadequately sized network closets that will not support emerging high-capacity networking technologies. The re-cabling of academic and administrative buildings and residential facilities will cost in excess of \$10 million.

The three biggest challenges facing Distance Education are: working with the academic colleges to ensure the most efficient possible use of limited faculty resources, maintaining Lehigh's position in the increasingly competitive and volatile distance education marketplace, and building and re-shaping Distance Education resources to support an increased level of highly diversified programming.

There are several enterprise wide initiatives on the horizon: identity management, constituent relations management, and imaging for records management. All require close collaboration among many campus units, attention to security issues, and judicious evaluation of the products on the marketplace. The challenge for LTS will be to integrate these initiatives seamlessly with the Banner system to enhance productivity.

Finally, marketing of LTS services to the Lehigh University community is a continuing challenge. Feedback from our reviewers reminded us that faculty, staff, and students have many concerns vying for their time. We need to communicate effectively with them so that they are fully aware of the opportunities LTS can offer them to enhance their teaching, learning, and research.

LTS has been very successful in the past several years in fostering and developing an organizational commitment to service. The Lehigh Lab campus-wide learning initiative has given visibility to the fundamental need of the campus to think differently, take risks, be innovative and communicate effectively. The community of learners, including faculty, staff, and students know that there are resources available to assist them and that their own best practices will in turn be disseminated between and among them.

In an era in which information technology has become an ubiquitous presence in academic institutions, and in a social context in which information technology is widely viewed as an enabler of efficiency and competitiveness, we at Lehigh will keep our focus on the goal of enhancing learning and research. The challenge will be to continue thoughtful use of information technology and library resources for the enrichment and extension of the learning environment. As Lehigh aspires to find its place among the top thirty universities in the United States, information technology will be an indispensable enabler of new collaborative and interdisciplinary initiatives such as those even now getting under way in opto-electronics and photonics, computer science, and the life sciences. A major resource challenge for Lehigh University will be balancing existing Library and Technology Services' priorities in concert with the assumed growth and demand for new technology support and new program offerings and services.

Though Lehigh's technical infrastructure and technical support staff are solid, there will be challenges in many information technology-related areas if the institution's overarching goal of achieving a new prominence and visibility in teaching, research, and service is to be met. To this end, an agenda for action for the next five years has been identified by the management of Library and Technology Services in collaboration with faculty and staff from throughout the university.



This agenda embraces broad initiatives in ten major areas that all impact the teaching, research, and service missions of the university:

1. To extend the reach of the learning environment, we will work to enhance campus connectivity and student access.
2. To strengthen support and provide new accommodations for learning and research, we will reinvigorate library facilities, services, and collections.
3. To support flexible and evolving teaching modalities, we will enhance the learning environment through such activities as the creation of an instructional design support facility (Lehigh Lab) for faculty and the development of state-of-the-art "adaptable classrooms."
4. To foster intellectual growth and to encourage individual involvement in the life of the university, we will encourage innovative uses of technology to create a balanced e-learning and campus community.
5. To better support the research initiatives of faculty and graduate students, we will enhance academic and research computing capacity.
6. To reach out to new student populations, to facilitate the globalization of Lehigh's academic programs, and to extend availability of the undergraduate experience beyond the bounds of the traditional classroom, we will support growth and improvement in Distance Education and the Global Lehigh Initiative.
7. To enable Lehigh students, faculty, and staff to be adept, knowledgeable users of the technology and research tools of the 21st century, we will implement multi-faceted learning and support models for technology and information literacy.
8. To make Lehigh a visible participant in the global academic and research community, we will leverage technology resources for expanded development and outreach activities with Global Lehigh.
9. To provide timely, reliable institutional information to Lehigh students, faculty, and staff whenever and wherever it is needed, we will expand Lehigh's Enterprise-Wide Information Systems (LEWIS).
10. To better reach current and potential institutional constituents, be they students, faculty, corporate partners, or alumni, we will enhance marketing and communications through technology.

With careful, concerted attention to, and investment in, these broad initiatives, Lehigh will move closer to realizing its goal of emerging over the next decade as an innovative, flexible university with a scope and international reach well beyond its size.

STRATEGIES & INITIATIVES

1. Enhance Access & Campus Connectivity
2. Enhance Library Access, Services, and Collections
3. Create Flexible New Teaching & Learning Environments
4. Foster a Balanced E-learning Environment & Community
5. Develop Enhanced Academic/Research Computing Capacity
6. Support Growth and Improvement in Distance Education
7. Implement Multi-Faceted LTS Learning Models
8. Leverage LTS Resources for Expanded Development and Outreach Activities
9. Expand Lehigh's Enterprise-Wide Information System (LEWIS)
10. Enhance Marketing and Communications

1. ENHANCE ACCESS & CAMPUS CONNECTIVITY

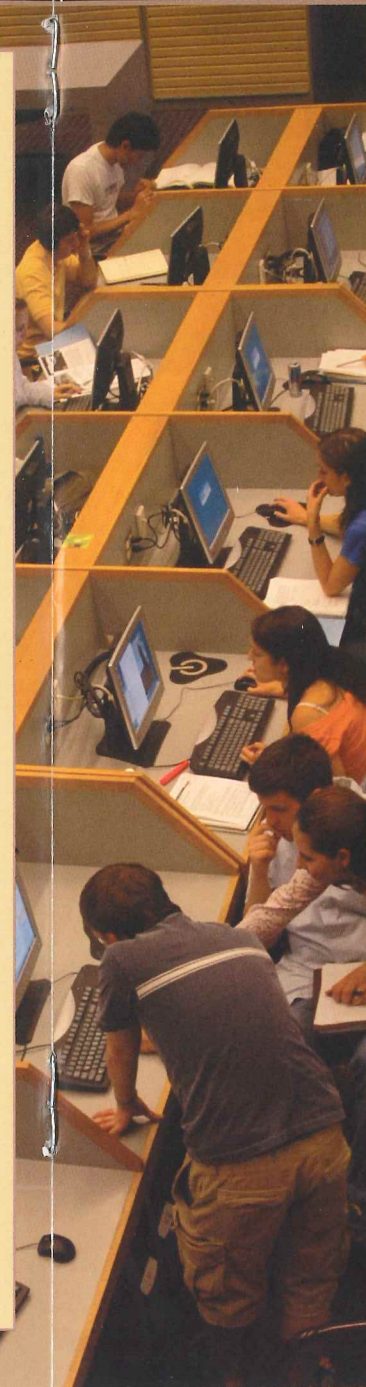
Provide the opportunity to access information, library services, communication services and computational resources from any location, at any time for students, faculty, and staff.

- Expand wireless network coverage to provide comprehensive access in campus residences, academic, and administrative buildings as well as in additional outdoor areas.
- Complete a network environment that permits appropriate access to common network resources for all classes of devices – desktop, laptop, handhelds, and cellular. Increase hardware and software support for handheld devices, and tablet PCs.
- Develop a comprehensive campus network infrastructure plan that projects needs and service during the next five years, including the possibility of a converged (e.g. voice and data) network.
- Ensure robust, reliable levels of internal and external connectivity through sufficient bandwidth and expanded network monitoring and maintenance capabilities.
- Improve the security and reliability of departmental computing services and data that impact major activities on campus, including data encryption options. In collaboration with faculty, assess and plan for additional data storage capacity and effective retrieval mechanisms in a wide range of applications.
- Deploy pilot implementations of new and newly integrated technologies such as Internet Protocol (IP) telephony, unified messaging combining voice mail and e-mail, and other innovative systems.
- Enhance technology services for persons with physical challenges (vision and hearing impairment, restricted mobility, and others) so that there is universal access to resources.

2. ENHANCE LIBRARY ACCESS, SERVICES, AND COLLECTIONS

Provide students, faculty, and staff with a robust mix of physical and virtual library resources that enhance and stimulate research, scholarship, and student learning.

- Complete the Linderman Library transformation project and implement a new service model that provides an inviting intellectual center for the entire campus and a home for humanities collections and services in spaces that are exciting, flexible, and technologically state-of-the-art.
- Maximize access to scholarly information through continued conversion of journal literature and reference materials to electronic format. Lehigh's library collections will be reconfigured in coming years: most journals will be received exclusively in electronic format; electronic books will emerge as a format of choice for course readings and online education; and the licensing of large electronic back files of commercial publishers will be required to create an effective e-collection. There will be continued and focused acquisition of scholarly print monographs and participation in cooperative efforts at every level for print and digital preservation.
- Expand campus and global access to unique Lehigh resources by completing the Beyond Steel Digital Library project, initiating new projects tied to innovations in teaching and learning, and digitizing Lehigh documents: theses, photographs, and campus publications such as the *Brown and White*.
- Explore and implement emerging systems to manage library/media resources and rights more effectively and to offer related new services. These may include electronic resource management systems, copyright management and clearance systems, and digital delivery of media and documents to the desktop and/or classroom.
- Implement the next generation integrated library systems as new functionality and services become available.
- Enhance Fairchild Martindale Library's usability for collaborative and individual learning even as library print collections expand by transfer of appropriate collections to the Library Materials Center (LMC) and implementation of additional compact shelving in the LMC and Fairchild Martindale Library as needed.
- Build on Special Collections' strengths and develop a collections, acquisition, and management policy in coordination with faculty and administrative users to focus the objectives of the Special Collections and Lehigh archives programs.



3. CREATE FLEXIBLE NEW TEACHING AND LEARNING ENVIRONMENTS

Under faculty leadership and with LTS support, create attractive, flexible technology-enabled physical and virtual learning environments to meet Lehigh's pedagogical objectives.

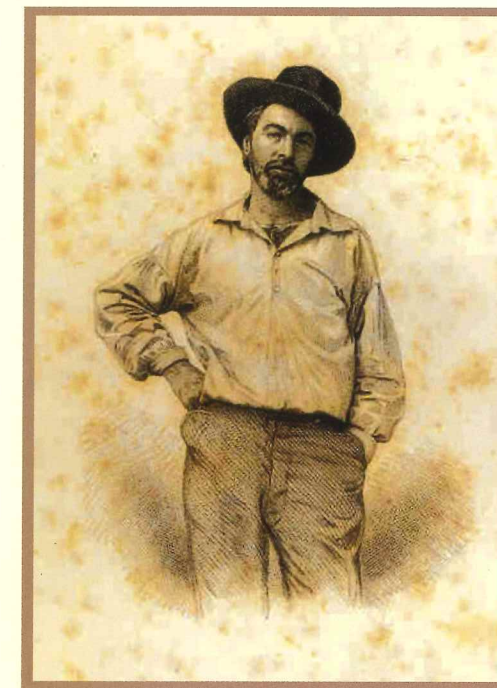
- Support teaching and learning innovations by implementing a broad range of new technologies from straightforward improvements like audience response systems to a new collaborative classroom to serve as a test-bed for future classroom upgrades. Address technological, space, and pedagogical issues to support visual learning initiatives (animation, simulation, virtual reality).
- Capitalize on the capabilities of the new Digital Media Studio, the Technology Resource Learning Center, and other enhanced classroom facilities by significantly increasing training opportunities, course related special sessions, and evening and weekend hours of operation.
- Increase reliability of classroom technology by implementing remote monitoring and diagnostic systems. Streamline faculty use of specialized software in classroom settings where possible including more flexible boot images to accommodate routine use of this software and the ability to load software in advance even from off campus.
- Enhance distance education production and broadcast facilities to ensure professional quality programming for a full range of offerings: academic curricula, professional development courses, corporate training programs, and contracted services.
- Implement as appropriate new distance education course delivery technologies that are cost-effective and provide a positive and effective learning environment for the student.



4. FOSTER A BALANCED E-LEARNING ENVIRONMENT AND COMMUNITY

Engage university administrators and academic leaders in ongoing dialogue about the best ways to utilize information technology as a means to extend and enhance Lehigh's distinctive culture and style as a primarily (but not exclusively) residential university.

- Document and extend Lehigh's learning assessment culture for the upcoming Middle States Association of Colleges and Schools full accreditation review of Lehigh University.
- Launch the new "Writing across the Curriculum" program to support faculty in improving undergraduate writing and analysis skills within the context of their disciplines. Coordinate with information literacy and instructional technology initiatives as appropriate.
- Offer diverse faculty development opportunities targeted to address the needs of specific and varied teaching and research environments; for example: large lecture classes, uses of geographic information systems, new features of course management systems, etc. Further integrate instructional technology outreach efforts with faculty development activities to present faculty with a broad range of instructional approaches.
- Maintain high quality in distance education courses by evaluating and assessing distance learning effectiveness and student and faculty satisfaction. Determine best practices as well as any need for modification in either student or faculty support or delivery features.
- Build on the success of the award-winning Lehigh Lab including the Faculty Fellow program in which a senior faculty member serves as motivator, mentor, and facilitator for other faculty wishing to incorporate more technology in their teaching and the Technology Resource Learning Center, a facility that provides a demonstration classroom, a computer cluster, and various consulting services for faculty. Regularly promote these resources and their expanded use by communicating about them with faculty. Engage a second Council on Library and Information Resources (CLIR) Fellow to introduce a beginning humanities scholar to research librarianship provided that program continues.



5. DEVELOP ENHANCED ACADEMIC/RESEARCH COMPUTING CAPACITY

Under faculty leadership and with LTS support, implement initiatives to meet high-end computing and network requirements in support of research and scholarship.

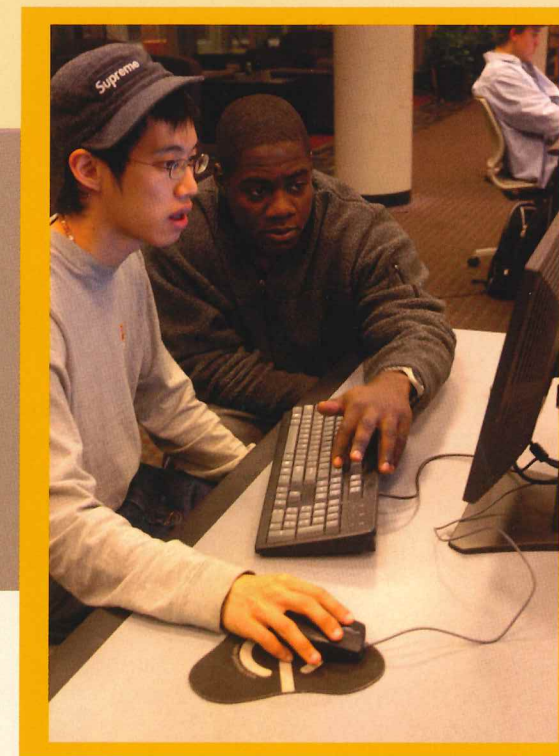


- Increase the concentration of high performance computing consulting resources; for example, through the addition of a research assistantship in this area.
- Re-cable high priority research-intensive academic buildings to provide reliable building networks with bandwidth connections high enough to satisfy research-related requirements.
- Expand training and awareness of high performance computing resources through workshops, special events, listserv communications, and relationships with other centers of excellence to share support of specialized applications.
- Maintain regular life cycle replacement for high performance computing systems including the compute server, workstations, and Beowulf clusters.
- Explore and adopt appropriate open source software (such as Sakai, Condor, and Fedora) and open access data repositories (such as dspace.org) when these systems are cost effective at Lehigh and provide flexible and friendly interfaces.

6. SUPPORT GROWTH AND IMPROVEMENT IN DISTANCE EDUCATION

Develop high quality distributed education program offerings in all colleges utilizing various delivery methodologies for undergraduate education, graduate courses, and lifelong learning opportunities.

- Identify opportunities for new or expanded programming from university academic units, including degree programs, certificate programs, professional development courses, cross-departmental or cross-college programs, and cutting-edge research based programs.
- Broaden marketing approaches and methods to reach the widest and most diverse market targets possible. Increase cost-effective use of web-based advertising and promotional opportunities.
- Maximize student access to distance education programming by offering all courses in multiple delivery formats so students have the option of choosing their preferred system – satellite, web-based, video conferencing, Internet2, pod cast, and DVD as well as new technologies as they develop.
- Research emerging tools and technologies that will further enrich the overall distance and traditional learning process and provide access to resources not previously open to learners such as audio pod casts, webinars, tablet PC applications in captured lectures for online courses, and web-based shareable programs.
- Strive for maximum efficiency and cost-effectiveness in program development, management, and delivery to meet the expected and budgeted level of funds to Lehigh, the contributing colleges, academic departments, and programs.



7. IMPLEMENT MULTI-FACETED LEARNING MODELS

Strengthen the technological and information processing capacity of Lehigh University's students, faculty, and staff by providing development programs in concert with Library and Technology Services' mission and University needs.

- Identify information literacy objectives for major subject disciplines in concert with faculty members in those disciplines. Develop classroom and online training curricula for inclusion in appropriate upper level courses. Assess, extend and improve the research skills literacy program developed for first year students.
- Initiate a program to assess technological literacy and design curricula as needed in coordination with faculty. Explore opportunities to support visual learning.
- Expand, promote, and enhance Lehigh's array of tools for individual and classroom learning and research; for instance, citation management software, synchronous communications software, and classroom note taking software. Implement new delivery mechanisms for campus software.
- Increase the use of real-time conferencing tools to support distance education, research initiatives, global initiatives, and professional development activities.
- Working with faculty, assess the value of current and emerging technologies to enhance learning within and beyond the classroom, including phenomena like instructional gaming and virtual environments, tablet PCs, and social networking tools.
- Enable students and staff to showcase and assess learning through personalized, web-based publications and projects that are shared over the internet and generally known as "e-portfolios." Increase recognition of and distribution of Lehigh University student research.



8. LEVERAGE LTS RESOURCES FOR EXPANDED DEVELOPMENT AND OUTREACH ACTIVITIES

Move aggressively to develop new partnership, funding, and support opportunities that will enable Lehigh University to play a prominent role in establishing itself as a regional, state, and national leader with respect to innovation in teaching, research and community outreach.

- Partner with vendors, academic institutions and other corporations and organizations to advance high priority projects of mutual interest. Specific areas of anticipated collaboration include portal development, computing infrastructure, training, journal storage, and digital library software and projects.
- Increase awareness of outside funding opportunities such as research grants, project financial support, and appropriate revenue. Apply for funding directly and give technical support to other Lehigh University units making applications.
- Select and implement constituent relationship management (CRM) for the university to enhance development and outreach activities. These systems are designed to assist with the management of student and alumni relations through the capture and leveraging of data relating to important prospects, donors, alumni, and friends. Investigate the utility of CRM for managing graduate admissions prospects.
- Develop and strengthen relationships with existing and potential distance education corporate partners to increase enrollments and create additional programming opportunities such as specialized courses.
- Collaborate with Advancement staff in identifying and cultivating donors and prospects for the Linderman renovation and other appropriate projects.



- Increase the capacity of the Friends of the Lehigh Libraries organization to highlight LTS programs and to generate support on and off campus.
- Communicate Lehigh's accomplishments and share LTS expertise through leadership, publications, and presentations in professional organizations and user groups at many levels: regional, state, national, and global.

9. EXPAND LEHIGH'S ENTERPRISE-WIDE INFORMATION SYSTEMS

Leverage the unified enterprise-wide system (LEWIS) and other systems and facilities to improve access to institutional information, to ensure reliability and accuracy of data, and to enhance security and business continuity.

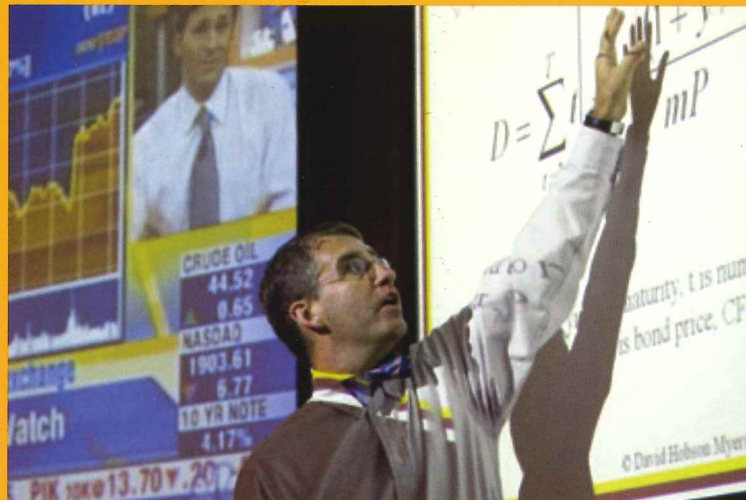
- Expand the LEWIS business continuity initiative to include Tier 2 and 3 systems in the semi-annual disaster recovery “rehearsals” conducted in coordination with Lehigh’s off-site disaster recovery provider.
- Evaluate, procure, and implement an identity management system to secure and manage access to Lehigh’s networks and resources.

- Maintain Banner, Luminis, and Oracle software currency and replace hardware on the appropriate life cycle schedule to support the enterprise systems infrastructure.

- Enhance redundancy in campus communications systems by completing an alternate network operations facility on the Mountaintop Campus.

- Integrate new university-wide enterprise initiatives into Banner (that reduce dependence on paper-based systems) such as an automated (check) clearinghouse function for use by students and their parents and an imaging system for record management and retention. Enhance functionality in other existing auxiliary enterprise software and systems.

- Establish campus-wide data security standards and procedures consistent with the requirements of the federal HIPAA and FERPA legislation protecting health and education related privacy.



10. ENHANCE MARKETING AND COMMUNICATIONS

Promote and support the mission and services of Lehigh University to local, state, national, and international constituencies through state-of-the-art communication technologies and marketing in collaboration with appropriate academic and administrative departments.

- Create and support new web-based portals for alumni, admitted students, parents, and other appropriate groups within the larger Lehigh University community. Implement alumni e-mail for life.
- Establish sustainable personnel, life-cycle, and software resources to manage a mature production portal environment.
- In collaboration with University Relations, initiate a new portal-based system for campus communications, including staff announcements, etc. Empower campus units to create and manage their portal information through the implementation of content management systems and training.
- Ensure full coordination of distance education marketing and promotion with other Lehigh units, both on the university and academic college level, through joint branding, marketing research, and as appropriate, media purchases.
- Identify new prospects for diverse distance education programming opportunities such as school districts, Intermediate Units, community college networks and career and development centers.
- Enhance communications through regular LTS online and print publications, effective web sites, client and market surveys, and other forums for interaction with faculty, staff, and students.
- Facilitate use of the Lehigh University website with improved search software.



I would like to thank the following Library and Technology Services' advisory groups. We appreciate their work in providing feedback on a regular basis throughout the year and keeping us focused on our goals. The groups and their current memberships are:

- **Advisory Council for Information Services (ACIS)**

James A. Hall (chair), Associate Professor, Accounting; Henry F. Korth, Professor, Computer Science and Engineering; Susan Lantz, Associate Dean, Student Life; Rosemary J. Mundhenk, Professor, English; Robert E. Siegfried, Director, Finance and Administration; Judith A. Duffield-Smith, Associate Professor, Education and Human Services

- **Distance Education Steering Committee**

Stephen H. Cutcliffe (chair), Professor, Science, Technology, and Society Program; John P. Coulter, Professor, Mechanical Engineering and Mechanics; Michael G. Kolchin, Professor, Department of Management; Gary J. Lutz, Professor, Education and Human Services; Debra Protchko, Assistant Vice President, Marketing; Mary Theresa Taglang, Director of Graduate Programs

- **High Performance Computing Steering Committee**

Theodore K. Ralphs (chair), Assistant Professor, Industrial and Systems Engineering; Brian D. Davison, Assistant Professor, Computer Science and Engineering; Terry J. Delph, Professor, Mechanical Engineering and Mechanics; Bruce A. Dodson, Associate Professor, Mathematics; Samir Ghandiali, Assistant Professor, Mechanical Engineering and Mechanics; Robert R. Kendi, Director, Rauch Center for Business Communication; Ian Laurenzi, Assistant Professor, Chemical Engineering; Jeffrey T. Linderth, Assistant Professor, Industrial and Systems Engineering; David H. Myers, Director of the Financial Services Laboratory; William M. Pottinger, Assistant Professor, Computer Science and Engineering; Jeffrey M. Rickman, Professor, Materials Sciences and Engineering; Bill Schiesser (member emeritus), Professor, Chemical Engineering; Jeffrey A. Spirko, Research Associate, Chemistry

- **Library Users Committee**

Barbara R. Pavlock (at large), Associate Professor, English; MJ Bishop, Assistant Professor, Teaching, Learning, and Technology Program; Charles E. Lyman, Professor, Materials Sciences and Engineering; Robert E. Rosenwein, Professor, Sociology and Anthropology; Theodore W. Schlie, Associate Professor, Department of Management

1. **Linderman Library** – The construction phase of the renovation project began in May 2005 with completion anticipated in spring 2007. Related accomplishments include raising \$6.0 million dollars in donations, relocating 250,000 books, adding a second level in the Library Materials Center, and developing strategies for delivering collections and services to users until 2007. Linderman will serve as a humanities library and an intellectual center with seminar rooms, technology, group studies, improved accessibility, and a café.
2. **Lehigh Lab** – The Lehigh Lab was created, based on the concept that the University as a whole is a laboratory in which faculty, staff and students work and experiment together, across departments and disciplines, to advance learning. Two faculty members have served as Lab “faculty fellows” and a Technology Resource Learning Center was built in Fairchild Library to offer faculty a state-of-the-art classroom and convenient access to peers, instructional designers, and faculty development staff. In recognition of this innovation, Lehigh received the 2004 EDUCAUSE award for Systemic Progress in Teaching and Learning.
3. **Portal and MyLibrary** – LTS implemented the Campus Pipeline Luminis Portal and subsequently developed the first year student portal, the MyLibrary portal, and the accepted student portal. About 4,500 individuals log into the portal daily with a “single sign-on” that allows access to registration, course management, employee benefits, and other services. The “groups” function provides for convenient communication among many academic, administrative, athletic, service and social groups. Lehigh received the Center for Digital Education’s “Best of Web” award in 2004 for the portal implementation.
4. **2020 Infrastructure and Classrooms** – As part of the Lehigh 2020 initiative, LTS upgraded classroom technology and network infrastructure dramatically. 85% of the classrooms are now “technology enabled” with, at a minimum, an electronic podium, computer, projector, screen, and DVD/VCR. Network speed, reliability, and flexibility were enhanced by installing new switches in all campus buildings and replacing the entire cable plant in Packard and Sinclair Labs with gigabit data ports. Work began on upgrading the network core to an even higher bandwidth with new switches, routers, and redundant firewalls at the network border.
5. **Digital Library** – The virtual library became a reality through the creation of the MyLibrary portal, implementation of SFX links, and the addition of myriad retrospective electronic journals, databases, and collections. Six diverse digital library projects integrated Special Collections materials into the curriculum and provided worldwide access to these materials and campus scholarship.
6. **Disaster Recovery** – Working with the LEWIS Steering Committee and others, the Sungard SCT Banner applications have been enhanced and integrated with other campus assets such as the campus portal and the TouchNet Gateway for online credit card payments. Of particular note has been the development of a business continuity plan that includes a subscription to a recovery site provider.

• Continued on Pg. 22 •

• Continued from Pg. 21 •

7. **High Performance Computing (HPC)** – In collaboration with the High Performance Computing Committee, capacity has been significantly enhanced. Projects include the acquisition and support of an SGI Altix 350, two Beowulf Clusters, two grids, 20 IBM Intellistations, the Egenera BladeFrame, and a system donated by the Partners for the Advancement of Collaboration Engineering Applications or PACE.
8. **Teaching and Learning** – Teaching and learning support was increased substantially through the provision of the Centra virtual classroom software, extensive collaboration with the Mellon-funded Clipper program, and the initiation of an Information Literacy program. Innovations in teaching and learning resulted in many more classes that are web-based, multimedia-intensive, and online. The number of professional staff in direct support of instructional design and instructional technology was increased from four to eight.
9. **Distance Education** – Partnering with the Colleges, there has been significant growth in online course offerings (750%), courses delivered (80%), and course registrations (40%). The 2020-funded Marketing Initiative professional has produced quality materials, advertising, and needs assessment in an intensely competitive market.
10. **Wireless** – Wireless connectivity was added to all common spaces, including residences and some outdoor areas so that both wireless connectivity and security is extensive in sixty percent of campus academic and administrative buildings. Wireless laptops were added for a student loan program from the two libraries.

* * *



<http://www.lehigh.edu/lts>

Photographs by Steve Lichak and Mary Liz Colley
Design by Ludmilla Bispels '07